

### Abstract

The present invention discloses a power supply circuit for a motor vehicle electric system having a starter generator (1), a power electronics system (LE), at least one battery (B), at least one dynamic energy accumulator (3) and a DC/DC converter (2). The power supply circuit has a first connection branch which is provided with the DC/DC converter (2) and is connected to a terminal of the dynamic energy accumulator (3) and a second connection branch which is connected to a terminal of the battery (B). Both connection branches can be disconnected from the starter generator (1) by means of controllable switches (S1, S2). A control device (5) actuates the switches (S1, S2) in the first and second connection branches and the DC/DC converter (2) in response to a charge state of the battery (B) and of the energy accumulator (3) and an operating state of the motor vehicle in such a way that recuperation energy which is present in the energy accumulator (3) is stored, drive support is provided by energy from the energy accumulator (3) as soon as the latter is charged, and until then from the battery (B), and for a rapid start energy is used from the energy accumulator (3) and the battery is charged according to its charge state as required, and after a recuperation the vehicle electric system is fed via the battery (B).

(Fig. 1)